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REPORT

OF THE

BOARD OF TRUSTEES

OF THE

NEW HAMPSHIRE COLLEGE OF AGRICULTURE
AND THE MECHANIC ARTS,

JUNE SESSION, 1870.

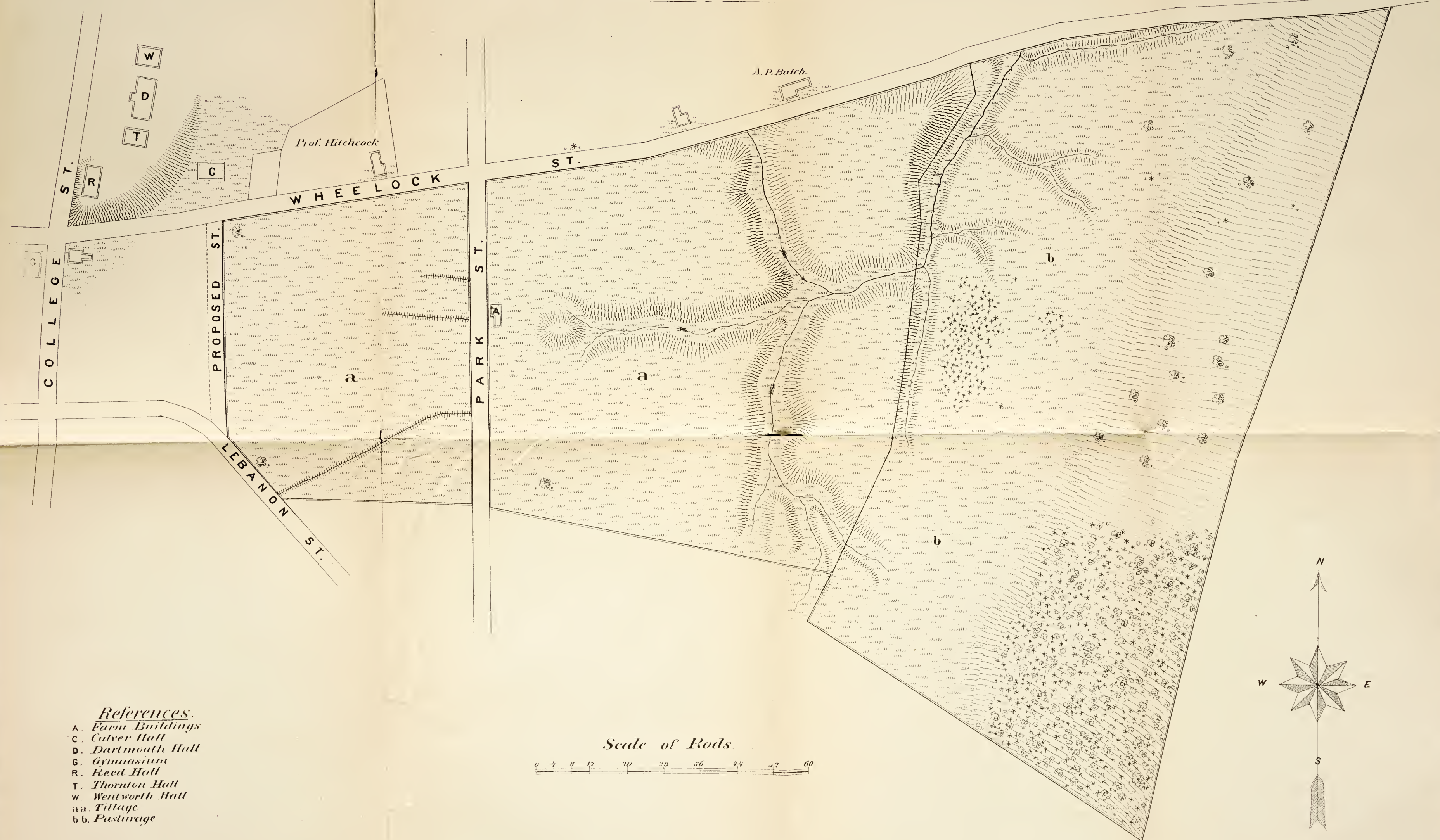
MANCHESTER:
JOHN B. CLARKE, STATE PRINTER.
1870.

AGRICULTURAL COLLEGE FARM

MANOYER, N.H.

TOTAL AREA 158 ACRES.

A.P. Batch



References.

- A. Farm Buildings
- C. Culver Hall
- D. Dartmouth Hall
- G. Gymnasium
- R. Reed Hall
- T. Thornton Hall
- W. Wentworth Hall
- aa. Tillage
- bb. Pasture

Scale of Rods.

0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60

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REPORT.

*To the Honorable Senate and House of Representatives in
General Court convened :*

The Trustees of the New Hampshire College of Agriculture and the Mechanics Arts respectfully submit their Fourth Annual Report.

The Faculty of Instruction as given in the catalogue, has been as follows : Rev. Asa D. Smith, D. D., LL. D., *President* ; Ezekiel W. Dimond, A. M., Professor of General and Agricultural Chemistry ; Thomas R. Crosby, M. D., Professor of Animal and Vegetable Physiology ; Rev. Daniel J. Noyes, D. D., Instructor in Intellectual and Moral Philosophy ; Edwin D. Sanborn, LL. D., Instructor in Rhetoric ; Elihu T. Quimby, A. M., Instructor in Civil Engineering ; Charles A. Young, Ph. D., Instructor in Natural Philosophy and Astronomy ; Charles H. Hitchcock, Ph. D., Instructor in Mineralogy and Geology ; Charles F. Emerson, A. B., Instructor in Mathematics ; Dwinel F. Thompson, B. S., Instructor in Drawing. Of these names there is but one not included in the catalogue of the last college year, that of the Instructor in Drawing. There being but two classes, Professors Noyes, Sanborn and Hitchcock had no occasion to give instruction ; but with the entrance of another class the next autumn, and the taking up, by consequence, of all the parts of the curriculum, the services of all the Faculty will be required.

A new Junior class entered last Fall, making the whole number connected with the institution during the year nine. Chiefly occupied with the large provision we are making—in the erection of a new building and the securing of an experimental farm—for the future wants of the institution, comparatively little pains have been taken to call in new students. With the deportment and progress in study of both the existing classes, the Faculty express great satisfaction. We see therein an indication of the gratifying results that may be looked for when all our arrangements shall have been completed, and large numbers shall avail themselves of the ample aids offered them. The Middle class will the next year be Seniors; and at its close will have finished the three years' course of study. At the next Commencement they will receive, as our first graduating class, the prescribed diploma.

Professor Dimond has not only given the required teaching in his department, but has acted, in some sense, as General Agent of the institution, attending to a great variety of matters essential to its welfare, but not properly belonging to his line of instruction. He has also acted as Secretary of the Building Committee, and has had the main care of the details of their work. He has by request drawn up a report to the Trustees, having reference chiefly to Culver Hall. The corner stone of this building has just been laid, under the direction of His Excellency Governor Stearns, with the presence of the Honorable Council, together with several Committees, and divers other members of both Houses of the Legislature. Professor Dimond's report is as follows:

PROFESSOR DIMOND'S REPORT.

To the President and Trustees of the New Hampshire College of Agriculture and the Mechanic Arts:

GENTLEMEN,—You will remember my presenting, by request, at your last annual meeting, a somewhat lengthy paper, in which I attempted to set forth the aim, policy and wants, both immediate and prospective, of the Institution whose rights, privileges, interests and management are committed to your charge. Since that time my labors have been directed almost exclusively to carrying forward the plans which you at that time adopted for securing to the College increased facilities and advantages. The generous proposition on the part of the Trustees of Dartmouth College to appropriate the sum of \$25,000 for the erection of a suitable building for the Institution was, after careful consideration, accepted by the Legislature, and the sum of \$15,000 appropriated from the State Treasury toward completing the building. A friendly criticism has suggested that this sum is *too small* to accomplish the object contemplated, and that we should not have asked the *State* to contribute towards a building for one of its own institutions less than Dartmouth College has done; especially as the latter, with its constantly increasing numbers, is itself in need of additional accommodations for carrying on its own appropriate work. But when we consider that this was the *first* substantial recognition of the claims of scientific education which the Legislature of New Hampshire had ever made, and this, too, made when the people were groaning under the burden of excessive taxation, and when the best paying stock in the political market was supposed to be “retrenchment and economy,” we are free to confess that the state did all that could, at that time, be reasonably expected. It would not, under these circumstances, have been wise to ask for more; and in view of what other states are appropriating to similar institutions, New Hampshire could not have afforded to give less.

Maine has given, within the past twenty-five years, nearly half a million dollars for the permanent improvement of her educational institutions. Bowdoin College has received \$48,511 and 110,000 acres of land; Colby University, \$16,000, and one town-

ship ; Bates College, \$37,750 ; Maine Wesleyan Seminary, \$11,800 ; Seminary at Bucksport, \$16,500 ; Female Seminary at Gorham, 55,000 acres of land ; Westbrook Seminary, \$19,000 and 11,600 acres of land ; Maine Charitable Mechanics' Association, 22,000 acres of land. Fifty different institutes, academies, schools, &c., besides the above, have received smaller grants of money and land. The Agricultural College has received \$14,000 from the citizens of Bangor, and \$50,000 from the Legislature, in addition to the United States land grant, which amounts to nearly \$125,000.

Harvard College has received from Massachusetts about \$400,000 ; Williams College, \$150,000 ; Amherst College, \$52,000, besides a recent appropriation of \$25,000 ; Tufts College, \$50,000 ; Agricultural College, \$120,000 ; Worcester Industrial Institute, \$50,000. The national land grant was divided between the Institute of Technology at Boston and the Agricultural College. The town of Amherst gave \$75,000 to the college. The Institute of Technology and Society of Natural History received a grant of land from the Legislature of the market value of \$200,000. On the organization of the Institute in 1862, a sum of \$50,000 was raised for commencing operations ; and during the past seven years the Institute has received over \$500,000 from private individuals. The expense of buildings, furniture, &c., was about \$350,000. The income, the past year, from funds and fees, was about \$39,000, which has met current expenses. Prof. Runkle says : " In order to put the Institute and Society of Arts on a firm foundation, \$250,000 additional are needed ; also for the building for the Museum of the Institute and its equipment, \$500,000 more." The Museum of Comparative Zoology at Cambridge received, at the outset, \$225,000, of which \$100,000 was from the Legislature of the state, and the rest from private subscriptions.

Rhode Island has given her Congressional grant for the establishment of a scientific department in connection with Brown University, and the Legislature has given \$10,000 for the purchase of an experimental farm, on condition that the same amount be raised by subscription or otherwise.

Connecticut bestowed her funds upon the Scientific School connected with Yale College, where it has the use and advantage of property in buildings, museums, etc., of the value of \$200,000, besides the privileges of the College.

New York had raised \$80,000 for an Agricultural College previous to the Congressional movement. This, with the land grant,

valued at \$1,000,000, and the munificent gift of Mr. Cornell, of more than \$800,000 in all, places the college on sure footing, as to funds at least.

Pennsylvania had appropriated \$100,000 for an Agricultural College previous to the land grant, the aggregate composing the fund of the State College of Agriculture.

Michigan provided for and started an Agricultural College in 1865, and Barnard's report says: "This institution was in a highly successful condition at the time when the national grant was made, and to its further development were directed the proceeds which came from the disposal of the land scrip." The Agricultural College has also received \$30,000 for a building, and receives \$35,000 per annum for current expenses. The state gives to Michigan University \$85,000 per annum.

Maryland agitated the subject of Agricultural Colleges twenty years ago, and in 1856 land and buildings were purchased at an expense for the whole investment of \$100,000. In 1866 the state gave the college the land grant and \$45,000.

Iowa, through its Legislature in 1858, appropriated \$10,000 for the purchase of a farm to start an Agricultural College; also at the same time, land valued at \$14,000. One county donated \$10,000, and private individuals \$7,000 more. To this institution the United States land scrip was assigned, valued at \$480,000. Prior to the reception of the national land grant, the institution had acquired a fund of \$30,000 after the purchase of a site, buildings, etc. In 1864 the Legislature appropriated \$20,000, and in 1866 \$91,000 more for the college. These facts will show that New Hampshire, in what it has done for its Agricultural College, is but acting in concert with a large number of sister states.

As the season was well advanced before it was settled whether we should, or should not, have at our command funds sufficient for the erection of a building, the committee at its first meeting decided that it would be inexpedient to attempt to complete the building before the present season (1870); but it was unanimously voted that the committee proceed without delay to make all the contracts for the stone, brick, lumber, and other material, and that the services of competent and reliable mechanics be secured in order that the work might be commenced and pushed forward with the least possible delay early this spring. The work of preparing the ground and quarrying the stone for the foundation was commenced immediately. Contracts for supplying the brick were also concluded, and all the plans of the building committee were being

carried forward in a very satisfactory manner, when a Providential hindrance was suddenly interposed, occasioning much delay and perplexity, and making us considerable additional expense. We refer to the disastrous flood of last October. Several hundred thousand brick, which were just ready to be burned, were almost completely destroyed by the flooding of the yards, and much of the wood was carried down the stream. The roads were so seriously damaged as to be almost impassable, and for several weeks remained in a condition which rendered the transportation of stone and other heavy material an utter impossibility. The season was then too far advanced to permit the making of more brick. And now as we are far removed from the great centre of supply, we are under the necessity of waiting a few weeks longer until the brick can be made and delivered. This will be early in the month of July. In the meantime the committee have had an opportunity to mature their plans, while the stone and wood work is progressing satisfactorily. We insert an engraving, which, though not satisfactorily executed, may give some idea of the exterior appearance of the edifice. We are happy to say that the architect's drawing is much superior to this, and we are confident that the building itself will be superior to either. These plans were drawn by the well known architect of Concord, Mr. Edward Dow, and the building will, it is believed, bear a favorable comparison with any similar edifice in this section of our country. It will be seen that it is some twenty feet longer than was originally contemplated. It was found that by a change of our plans, at a very moderate additional expenditure, several important advantages might be secured.

First, it would give our larger rooms more desirable proportions. Second, it would give us several additional small, and yet serviceable, rooms. Third, it would afford considerable more space for our constantly increasing collections for the museum. Fourth, it would render the external appearance of the entire structure far more symmetrical.

There will be a large hall running through the central part of the building, from north to south, with an entrance at either end protected by elegant porches. The lower story will be decorated with rustic pilasters. The windows will be plain square. As it is to be used for the storage of heavy instruments and models of implements, no elaborate finish will be required.

The second story will contain a lecture room 40 by 45 feet, and a working laboratory 49 by 30 feet, also a private laboratory, chemi-

cal room, apparatus room, weighing room and library. The windows of this story are to be arched with semi-circular vaults resting upon imposts, and its walls decorated with columns of the Tuscan order.

The third story is to contain a large lecture room, recitation rooms, and a museum for the collections accruing from the State Geological Survey. The fourth story will be used exclusively for a general museum of natural history.

While we have not overlooked, in the development of our plans, order and harmony of parts, owing to our limited means the decorations must be few and simple. We have aimed at solidity and strength rather than architectural beauty, though that, we think, will not be lacking. The foundation and basement are to be of solid split granite, and no pains and expense were spared in so laying the foundation as to render the whole structure firm and immovable. The ground was first underdrained, and then deep trenches six feet in width were excavated and closely packed with broken ledge stone, and upon these was laid a base course of split granite four feet in width and eighteen inches in thickness. The basement wall is of split granite two feet in thickness, and backed with packed boulders of small size.

On account of the corroding and blackening effects of many of the gases set free in chemical manipulations, it has been thought best to dispense entirely with the use of metallic paints in the interior, and finish with plain, native woods. A plan of finishing separate rooms with different woods indigenous to New Hampshire has been proposed, and will doubtless serve to render the interior of the building more attractive, and to whatever use the rooms may hereafter be devoted, they always will contain an exhibition of one important native product of the state.

As this building will be in use for one purpose or another almost the entire year, economy, comfort and safety would seem to require that we make the requisite preparation for heating with steam and lighting with gas. Furniture, work tables, and other equipments, will be wanted before the close of the year.

You will remember that at your last annual meeting, in my attempts to set forth the wants of the institution, I stated that all the property in its possession was contained in seven boxes, which I brought from Europe. The college buildings were crowded with students, so that we could offer no great inducements to young

men. From what we have just stated, it may be seen that in a very few weeks we shall be far more favorably situated.

1st. The young man who is disposed to enter this department can have accommodations in a building set apart for his own special work, superior to those of any other department of the college, and nowhere surpassed in point of comfort and convenience.

2d. In the study of chemistry he can have the use of all that Dartmouth College can offer to its own students, and the benefit of combining the chemistry of several departments, instead of the use of one small and inferior laboratory.

3d. The student can also see in his own building, the combined collections in geology, mineralogy, and natural history of the state and the college, and to these he can have free access, under proper regulations, for instruction and illustration.

4th. He has the benefit of instruction in, and experiments with, the entire collection of apparatus in natural philosophy, which is not inferior to any on this side of the Atlantic; and as the collections of mineralogy and geology are to be removed from the room adjoining Philosophical Hall to the new building, Prof Young proposes to use that hall for a laboratory, to contain working apparatus for illustrating the principles of mechanics. Here a counterpart to the laboratory for the study of industrial chemistry can be found by the special student in mechanics.

All of which is respectfully submitted.

E. W. DIMOND.

Hanover, May 10, 1870.

The desirableness of an experimental farm in connection with the institution was set forth, at large, in our last report. Since that report was presented, measures have been taken to supply this need. An opportunity occurred, which we gladly seized, of purchasing, at a very reasonable rate, a tract of land of about twenty-five acres—excellent land for our purposes—lying directly opposite the site of our new building. And we are happy to add that a contiguous farm of about one hundred and thirty-five acres, with a comfortable farm house and other buildings upon it, has been bought by Professor Dimond, and is held by him, to be transferred to the Agricultural College whenever it shall have means to make the purchase. This farm has a desirable variety of soil, and embraces a considerable number of acres of woodland. Taken in connection with the aforementioned piece of land, and making therewith an aggregate of about one hundred and sixty acres, it will happily meet all our wants. A plan of it is annexed to this report. The Trustees deem it very desirable to secure, as soon as possible, on the advantageous terms offered them, a title to this whole tract. Meanwhile, Professor Dimond has been requested to take upon himself the care and management of it, with the assurance that he will be indemnified for any loss he may sustain, when it shall all come into our hands. While it will be of great use for experimental purposes, it will afford opportunity for healthful and remunerative work, such as not only the students of this institution desire, but many of the members, also, of Dartmouth College. Agricultural and Academical students have already wrought together upon it,—honest labor being deemed disreputable no more by the one class than by the other.

With the full exposition which has been made in previous reports of the object and plan of the institution, neither of these points require further treatment.

The Trustees have an ever deepening impression of the immense benefits which this institution will confer upon the state, if it be properly cared for and patronized. As Culver Hall is to be ready for use, Providence favoring us, in the course of the next college year, it is now desirable that the attention of a large number of students should be turned to the advantages we offer them. Many of our young men have, from year to year, given themselves to courses of liberal study—a larger number, in proportion to our population, it has been affirmed, than in any other state of the Union. But a curriculum like that of the Agricultural College is a new thing in our commonwealth. It must needs be commended to the class for which it is especially designed. And the Trustees would respectfully suggest that this is a work in which the members of the Honorable Legislature may, in their several localities, take an influential and most useful part. If, in addition to making the advantages of the institution more widely known, individuals and communities in various parts of the state were to provide free scholarships for worthy but indigent young men, it would prove in the end a great public benefit. If each one of our towns were to offer yearly a scholarship as a prize to that boy in its common schools who should stand first in a competitive examination, not only would some of the finest talent be brought into our halls, but an inestimable quickening influence would be exerted upon the schools.

The Trustees would gratefully acknowledge a number of valuable gifts from friends of the College during the past year, to wit: from J. C. Tebbetts, Esq., of Hopkinton, a full-blooded Morgan stallion; from Hon. Peter Harvey, of Boston, a plow, made and used by Daniel Webster; from Joseph B. Walker, Esq., of Concord, a hay-tedder; A. Woolson, Esq., of Boston, a box containing one hundred specimens of forest wood; from Carl Pieper, of Dresden, Germany, a box of minerals; from Hon. J. W.

Patterson, Hon. A. H. Cragin, and others, a number of valuable books.

It is proper to state that, according to the classification of the members of the Board, the places of Messrs. Clarke and Lyman (appointed by the Governor and Council), and Hon. Anthony Colby (appointed by the Trustees of Dartmouth College), will become vacant the present year.

With these statements, to which will be appended a report of the Treasurer, and a Meteorological Register for 1869, kept by Prof. Charles A. Young, the New Hampshire College of Agriculture and the Mechanic Arts is again commended to the favorable consideration and generous care of the Honorable Legislature.

ASA D. SMITH,
President.

June 23, 1870.

TREASURER'S REPORT.

*To the President and Trustees of the College of Agriculture and the
Mechanic Arts :*

Your Treasurer respectfully submits his third annual report, for
the year ending April 1, 1870.

He charges himself as follows :

For cash in savings bank, for April, 1869,	\$6,379.65
received of State Treasurer, during the year,	
for interest on College fund	4,800.00
received of savings bank, for interest on de-	
posits	145.75
Total receipts	\$11,325.40

He credits himself with the following payments, on
orders of the President :

EXPENSES OF TRUSTEES.

Asa D. Smith	\$24.20
C. C. Hutchins	75.75
Edward Spalding	12.00
Wm. P. Wheeler	76.07
	<hr/>
	\$188.02

INSTRUCTION.

A. D. Smith, services as President, from or-	
ganization of institution to July, 1869, .	\$300.00
E. W. Dimond, balance of salary for 1868-1869,	
(six months)	750.00
E. W. Dimond, one year's salary, 1869-1870, .	1,875.00
T. R. Crosby	553.00
C. A. Young,	120.00

C. F. Emerson	\$206.00
D. F. Thompson	94.00
J. E. Sinclair	40.00
L. B. Hall	44.00
	<hr/> \$3,982.00

LAND.

S. W. Cobb, for land	\$2,000.00
Lumber and fencing same	42.13
	<hr/> \$2,042.13

INCIDENTAL EXPENSES.

Printing and advertising	\$125.90
Engraving for Report, 1869	55.00
Binding books for library	58.60
Telegrams and postage	58.10
Expenses of Legislative visit	152.90
Expenses on specimens for museum	28.00
stock for farm	18.25
plans for Culver Hall	98.80
	<hr/> \$595.55
Total expenditures	<hr/> \$6,807.70
Balance in savings bank	\$4,517.70

FREDERICK SMYTH, *Treasurer.*

I have this day examined the foregoing account of Frederick Smyth, Treasurer, and find the same correct and supported by the proper vouchers.

WILLIAM R. WALKER, *Auditor.*

June 1, 1870.

METEOROLOGICAL REGISTER

FOR

1869,

(WITH THE EXCEPTION OF AUGUST, THE MONTH OF COL-
LEGE VACATION,)

By PROF. CHARLES A. YOUNG.

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain or melted snow in gauge, in ins.	Depth of snow in inches	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.
1	10.4	8.3	8.7	9.1	Broken.	8.5	11 A. M.	9 P. M.		5.06	10 Str.		10 Str.	
2	10.9	21.3	18.1	15.1		1.5	7 P. M.	10 P. M.		2.00	10 Str.		10 Cir. st.	
3	21.3	34.3	28.7	28.1		10.0					10 Str.		9 Cir. cu.	
4	13.8	30.9	33.1	25.9		11.3					10 Str.		6 Cir.	
5	34.9	37.7	33.4	35.3		28.4		Night.	.04		10 Str.		10 Str.	
6	23.8	30.9	31.2	28.6		21.2					6 Cir. cu.		3 Cir.	
7	17.1	34.7		25.9		14.0					0		0	
8		40.8	34.0	37.4		20.5					0		4 Cir.	
9	34.1	37.9	41.9	38.0		32.4					10 Str.		10 Cir. cu.	
10	37.3	35.4	22.0	31.6		32.5					10 Str.		8 Cir. cu.	
11	18.4	28.2	25.1	23.9	Broken.	13.7	2 P. M.	11 A. M.		12.00	8 Str.		10 Str.	
12	24.8	27.9	22.0	24.9		23.1					10 Str.		3 Cir. cu.	
13	18.7	23.2	14.7	17.9		13.0					7 Str.		0	
14	13.4	20.3	19.1	17.6		9.2					0		0	
15	12.8	28.1	23.7	21.5		10.0					8 Str.		7 Cir.	
16	10.0	23.5	11.8	15.1		13.7					0		0	
17	3.8	21.7	15.9	13.8		1.5					0		10 Str.	
18	-0.4	7.0	-0.8	1.9		11.4					3 Cir.		0	
19	-3.4	10.9	3.1	3.5		14.0					6 Cir. str.		0	
20	3.4	22.0	24.1	16.5		28.0	8 A. M.			.15	10 Str.		10 Str.	
21	-0.5	12.7	14.2	8.8	Broken.	24.3		Night.		.08	8 Str.		10 Str.	
22	-3.7	1.0	10.9	5.7		17.2					10 Str.		0	
23	14.2	15.1	17.8	6.2		19.1					10 Str.		10 Str.	
24	27.4	35.4	32.0	31.6		30.1					8 Cir. st.		10 Cir. st.	
25	18.2	10.9	2.1	10.4		33.8					10 Cir. cu.		2 Cir. cu.	
26	-9.4	11.8	14.3	5.6		17.7					6 Cir.		8 Cir.	
27	0.2	21.7	18.0	13.3		25.0					0		2 Cir.	
28	10.0	33.2	31.9	25.0		35.4					6 Cir. cu.		8 Cir.	
29	21.0	37.4	34.5	31.0		37.8					7 Str.		8 Cir. cu.	
30	33.4	30.7	30.3	31.4		38.1	Morning.		.09		10 Str.		10 Str.	
31	29.2	25.9	21.3	24.8		38.1	Noon.			.04	10 Str.		10 Str.	
Sums									0.13	19.23				
Means				20°.17 Max.	27°.7 38°.1	10°.1 -23.2	Min.				6.8	Mean.	6.0 6.1	

JANUARY, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Str.	N.	3	N. W.	2	N.	2	29,798	29,759	29,722	29,760	1
10	Str.	N.	1	W. S. W.	2	S.	2	29,083	29,554	29,461	29,366	2
0		S. W.	2	W.	3	N. E.	2	29,352	29,377	29,489	29,406	3
10	Str.	S.	2	S. W.		S.	2	29,500	29,367	29,296	29,387	4
2	Cir.	S. S. W.	2	N. W.	2	W. N. W.	4	28,962	28,813	28,913	28,896	5
10	Str.	N. W.	3	W. S. W.	2	S.	1	29,183	29,225	29,316	29,241	6
0		N.			0		0	29,409	29,346		29,377	7
10	Str.		0	W.	2	N.			29,466	29,588	29,527	8
10	Str.	S. E.	2	S. S. E.		S.	3	29,490	29,287	29,130	29,302	9
0			0	N. N. W.	3		0	29,095	29,242	29,568	29,368	10
10	Str.		0	S. S. W.	1	N.		29,735	29,597	29,420	29,584	11
0		N. N. W.		N. W.	3	N.	3	28,885	29,063	29,399	29,116	12
0			0		0	S.		29,587	29,578	29,545	29,570	13
0			0	S. W.	2		0	29,438	29,344	29,331	29,371	14
10	Str.	N. E.		N. E.		N. E.	2	29,330	29,092	29,102	28,175	15
0		N. W.	2		0	N. N. E.	2	29,274	29,343	29,480	29,366	16
6	Cir. str.	E.		N. E.			0	29,502	29,564	29,642	29,569	17
0		N. N. E.			0		0	29,743	29,659	29,602	29,668	18
0		N. N. E.	2		0	S. S. W.		29,455	29,309	29,326	29,363	19
6	Cir. st.	N. E.	2	E. N. E.		N. W.	3	29,101	28,911	29,058	29,023	20
10	Str.	N. N. E.		N. N. E.		N. N. E.	3	29,208	29,080	29,009	29,099	21
0		N. N. E.	3	N. N. W.	2		0	29,353	29,396	29,417	29,389	22
10	Str.	N. E.		E. N. E.	2		0	29,213	28,968	29,014	29,097	23
10	Sts.		0		0		0	28,999	28,969	28,908	28,959	24
0		N. W	4	N.	4	N. E.		29,008	29,159	29,314	29,160	25
0			0		0		0	29,393	29,317	29,397	29,369	26
4	Cir.	S. E.		S. S. W.			0	29,409	29,324	29,242	29,325	27
10	Str.		0	W. N. W.			0	29,152	29,203	29,381	29,325	28
1	Str.		0		0	S. E.		29,449	29,419	29,400	29,423	29
10	Str.	S. S. W.	2	S. S. W.		W.	2	29,021	28,871	28,822	28,904	30
6	Str.	W.	2	N. W.	2	N.	2	29,040	29,095	29,263	29,133	31
56		N.-N. N. E. & N. E.-E. N. E.					.34				29,300	Sums
		E.-E. S. E. & S. E.-S. S. E.					.02			Max.	29,760	Means
		S.-S. S. W. & S. W.-W. S. W.					.24			Min.	28,896	
		W.-W. N. W. & N. W.-N. N. W.					.40					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	MEAN.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't. of rain or melted snow in gauge, in inches.	Depth of snow in inches.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.
1	14.4	17.3	7.3	12.7	22.1	11.4					5	Str.	0	
2	-1.2	11.9	10.0	6.9	14.2	5.4					0		0	
3	12.4	23.4	26.4	20.7	27.9	8.1	11 A. M.	2 P. M.		1.00	10	Str.	10	Str.
4	24.7	24.4	14.8	21.3	31.2	21.3					10	Str.	10	Str.
5	13.3	16.6	15.4	15.0	18.1	11.7					10	Str.	10	Str.
6	6.7	27.8	27.2	20.6	28.9	3.2					0		5	Cir. cu.
7	12.1	15.4	7.2	11.6	28.4	8.7					10	Str.	0	
8	-9.2	15.1	18.8	8.2	19.6	12.1					0		6	Cir.
9	11.0	29.7	22.9	21.2	30.3	8.3					10	Str.	2	Cir.
10	22.8	35.1	32.0	30.0	36.8	17.8	6 A. M.	11 A. M.		2.50	10	Cu.	2	Cir.
11	29.4	35.6	29.1	31.4	35.9	28.2					10	Str.	10	Str.
12	28.9	38.3	36.6	34.6	38.5	26.2		P. M.		.13	10	Str.	10	Str.
13	29.4	40.7	34.0	34.4	41.9	33.7	12 M.	4 P. M.		2.00	10	Str.	10	Str.
14	23.8	20.0	20.3	21.4	34.3	17.6		A. M.		.05	8	Cir. cu.	10	Str.
15	22.1	29.0	31.1	27.2	31.7	16.3	Hail	5 P. M.			10	Str.	10	Str.
16	27.6	31.4	26.7	25.2	36.4	26.1					10	Str.	10	Str.
17	23.0	35.3	30.5	29.9	35.4	21.2					8	Cir. st.	10	Cir. cu.
18	28.4	35.9	22.8	28.4	36.1	26.1	All day.			3.00	3	Cir. st.	10	Cir. st.
19	2.5	24.4	20.0	15.6	25.4	0.8					10	Str.	10	Str.
20	1.6	27.6	25.7	18.3	27.8	-1.1		P. M.		1.10	6	Cir. st.	10	Str.
21	17.1	27.8	27.7	24.2	29.8	14.7		Night.		.06	0		10	Str.
22	31.4	36.3	24.9	30.8	39.1	25.7					10	Str.	10	Str.
23	19.4	35.0	20.7	25.0	28.8	17.8					10	Str.	6	Cir.
24	11.6	25.8	19.2	18.9	26.3	8.7					10	Str.	10	Cir.
25	9.9	23.9	13.0	10.0	24.3	8.3					0		9	Cir. cu.
26	12.3	27.6	18.6	16.2	29.3	5.6	1 P. M.	Midnight		5.50	0		2	Cir. st.
27	25.1	27.9	30.4	27.5	30.0	23.6					10	Str.	10	Cir. st.
28	8.2	18.0	16.6	14.3	23.5	8.2					10	Str.	8	Cir. cu.
Sums									0.13	15.21	7.0			
Means				21° 8	28° 7	15° 3	Min.					Mean.	8 0	7.3
				Max.	41° 9	-1.1								

FEBRUARY, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
0		N. W.	2	N.	3	N.	4	29,504	29,588	29,735	29,601	1
10	Str.	W. N. W.	2	N. E.	1		0	29,872	29,837	29,177	29,629	2
10	Str.		0	S. E.	2	E. N. E.	3	29,559	29,225	28,955	29,246	3
0		N. W.	1	N. W.	4	N. W.	1	28,428	28,420	28,619	28,489	4
0		N. E.	3	W.	4	N.	3	28,941	28,918	29,147	29,003	5
10	Str.	W.	3		0		0	29,339	29,324	29,343	29,335	6
0		N.	4	N.	3		0	29,532	29,711	29,803	29,682	7
10	Str.	N. N. E.	1	N. N. E.	1	N.	2	29,764	29,574	29,543	29,627	8
0			0	N. N. E.	3		0	29,576	29,497	29,449	29,507	9
10	Str.	N. N. E.	1	N. N. E.	1	S. E.	3	29,403	29,376	29,414	29,398	10
10	Str.		0	E.	5	N. E.	1	29,394	29,308	29,500	29,301	11
10	Str.		0	S.	2		0	29,592	29,428	29,294	29,371	12
10	Str.	N.	1	N. E.	1	N. E.	1	29,307	29,231	29,305	29,281	13
10	Str.	N. N. W.	1	N. E.	2	S. E.	3	29,572	29,607	29,588	29,589	14
10	Str.	S.	4	N. W.	2	W.	1	29,352	29,013	28,900	29,088	15
10	Str.	W.	1	N. W.	3	N. N. E.	2	28,802	28,823	28,920	28,589	16
10	Str.	N.	1	S.	2		0	28,972	28,854	28,792	28,873	17
10	Cir. cu.		0	S.	1	N. N. W.	2	28,617	28,500	28,735	28,617	18
10	Str.	N. N. E.	2	W.	4	N. N. E.	1	28,840	28,802	29,124	28,923	19
4	Cir. cu.	E.	2	S.	3		0	29,384	29,345	29,369	29,366	20
10	Str.	S. E.	1	N. N. E.	2		0	29,447	29,401	29,321	29,380	21
10	Str.	W.	1	N. N. E.	2	N. E.	3	29,166	29,184	29,256	29,202	22
10	Str.	N. N. E.	2	S. S. E.	4	N. W.	5	28,936	28,466	28,771	28,707	23
6	Cir. cu.	N. W. W.	1	S. E.	1	W. S. W.	3	39,283	29,351	29,453	29,372	24
1	Cir.	S. S. E.	2	W. S. W.	2	S. S. W.	1	29,717	29,726	29,705	29,716	25
0		N. E.	1	S. E. E.	3	S. S. W.	1	29,595	29,387	29,158	29,579	26
10	Str.	N. W.	2	S. W.	3		0	28,781	28,823	29,133	28,912	27
10	Str.		0	N. W.	2		0	29,218	29,490	29,568	29,425	28
7.0		N.-N. N. E. & N. E.-E. N. E.					.38				29,136	Sums
		E.-E. S. E. & S. E.-S. S. E.					.18			Max.	29,716	Means
		S.-S. S. W. & S. W.-W. S. W.					.15			Min.	28,489	
		W.-W. N. W. & N. W.-N. N. W.					.29					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain or melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	-11.8	19.0	3.0	6.4	23.5	-21.1					0		0	
2	-15.1	10.5	12.0	2.5	21.5	-19.5					0		0	
3	-18.0	21.6	17.2	6.9	31.6	6.3	11 A. M.	Night		1.00	0		10	Str.
4	-27.6	30.6	12.8	5.3	32.1	2.6					10	Str.	0	
5	-8.0	9.2	-2.5	-0.4	22.0	-11.2	Morn	Night		.75	0		0	
6	-13.1	12.3	12.3	3.8	23.1	-17.8					0		10	Str.
7	14.1	17.6	4.1	11.9	22.9	4.0					2	Cir.	0	
8	0.0	27.0	13.8	16.9	34.3	-7.0					4	Cu.	3	Cir.
9	5.3	24.1	29.7	19.4	36.5	3.2	A. M.			4.00	4	Cir.	9	Cu. st.
10	27.0	35.3	34.8	32.4	38.1	21.2	7 A. M.	9 A. M.	0.70		10	Str.	10	Str.
11	24.1	31.2	24.9	30.1	39.4	22.5					0		3	Cu.
12	19.2	27.8	21.0	22.3	32.0	12.0					10	Str.	8	Str.
13	19.3	33.2	23.0	25.2	35.2	11.7	9 A. M.	11 A. M.		.50	10	Str.	3	Str.
14	15.8	38.9	32.1	28.9	44.4	12.5		Night		1.00	2	Str.	10	Str.
15	19.1	27.0	19.8	22.0	41.1	19.9					10	Str.	9	Str.
16	2.1	21.1	14.1	12.4	29.2	-1.1					0		0	
17	0.2	26.2	22.1	16.2	31.2	-2.8					0		0	
18	10.6	25.8	12.1	19.5	28.8	8.1					0		8	Str.
19	6.1	27.0	28.9	20.7	38.1	-2.1	6 A. M.	11 A. M.		1.50	9	Str.	5	Str.
20	27.2	36.0	25.8	29.7	47.3						10	Str.	10	Str.
21	8.1	13.8	10.2	10.4	25.1	25.0					0		0	
22	1.0	24.5	19.2	14.9	31.8	6.4	All day.			13.50	0		9	Cir. st.
23	21.6	30.0	27.2	26.3	32.8	-4.0	2 P. M.			.50	10	Str.	10	Str.
24	13.0	31.9	18.2	21.0	37.4	-12.0					3	Cir.	10	Str.
25	0.0	28.0	20.9	16.3	31.4	10.0					0		0	
26	10.0	32.0	33.9	25.3	34.6	-0.1	All day.		0.70		10	Cir. st.	10	Str.
27	34.1	44.6	29.0	35.9	48.5	6.0					10	Str.	10	Str.
28	34.7	45.2	35.0	38.3	47.1	28.0					6	Cu.	0	
29	34.5	40.0	34.8	36.4	45.0	35.0					10	Str.	10	Str.
30	34.2	38.0	36.2	33.1	40.8	28.0			.85		10	Str.	10	Str.
31	33.3	37.5	30.8	33.9	43.4	33.8					10	Str.	8	Str.
Sums									2.25	22.75				
Means				20°.2 Max.	34°.19 48°.5	6°.3 -21°.1	Min.				4.8	Mean.	5.6 5.5	

MARCH, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
0			0		0		0	29,680	29,430	29,363	29,491	1
0			0		0		0	29,378	29,199	29,215	29,264	3
10	Str.		0		0		0	29,225	29,391	29,606	29,407	3
0			0		0		0	29,391	29,199	29,336	29,309	4
0			0		0	N. W.	3	29,325	29,355	29,333	29,338	5
0			0		0		0	29,257	29,154	29,255	29,222	6
0			0		0		0	29,565	29,626	29,594	29,595	7
0		N. W.	2	N. W.	3		0	29,497	29,461	29,489	29,482	8
10	Str.		0		0		0	29,569	29,598	29,573	29,580	9
10	Str.		0		0		0	29,486	29,255	28,820	29,187	10
3	Cu.		0		0		0	29,211	29,356	29,383	29,317	11
7	Cir.		0		0		0	29,338	29,274	29,202	29,288	12
8	Str.		0		0		0	29,111	29,157	29,270	29,179	13
8	Cir.		0		0		0	29,298	29,059	29,220	29,192	14
10	Str.		0	N. E.	1	N. W.	1	29,338	29,365	29,513	29,405	15
0			0	N. W.	2		0	29,664	29,612	29,596	29,624	16
4	Str.		0		0		0	29,568	29,482	29,438	29,496	17
0			0		0		0	29,527	29,533	29,575	29,578	18
0			0	N. N. W.	4		0	29,609	29,547	29,328	29,495	19
0			0		0		0	29,025	28,897	29,076	28,999	20
0			0		0		0	29,386	29,525	29,701	29,637	21
8	Cir. st.		0	N. W.	2		0	30,889	30,854	29,780	30,508	22
8	Cir.		0		0		0	29,563	29,211	29,361	29,378	23
0			0		0		0	29,406	29,433	29,610	29,485	24
0			0	N. N. W.	3		0	29,810	29,285	29,760	29,286	25
10	Str.		0		0		0	29,740	29,638	29,453	29,610	26
10	Str.		0	N. W. W.	1	S. W.	2	29,247	29,284	29,386	29,306	27
4	Cir.		0	N. W.	1		0	29,512	29,505	29,805	29,541	28
10	Cu.		0		0		0	29,466	29,382	29,182	29,343	29
10	Str.		0	N. W.	2		0	28,850	28,839	29,772	29,154	30
0			0		0		0	29,347	28,982	29,115	29,148	31
		N. & N. E.					.04				29,417	Sums
6.2		E. & S. E.					0			Max.	30,508	Means
		S. & S. W.					.07			Min.	28,999	
		W.-W. N. W. & N. W.-N. N. W.					.89					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain or melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	24.6	32.6	28.8	28.7	44.3	22.4					10	Str.	10	Str.
2	29.6	42.8	29.0	33.8	44.5	22.6					7	Str.	8	Str.
3	30.4	36.8	25.8	31.0	42.6	23.2					0		10	Cir. st.
4	20.8	32.4	27.8	27.0	44.8	21.6					4	Cu.	0	
5	23.4	44.2	40.1	35.9		24.6					10	Str.	0	
6	35.5	43.8	37.2	38.8		30.1					10	Str.	2	Cir. st.
7	33.1	43.0	36.7	37.6		32.1					0		0	
8	34.3	42.2	32.6	36.4		31.2					0		0	
9	27.8	38.0	32.6	32.8		29.6					0		2	Cir. st.
10	34.8	37.0	29.5	33.8		21.6					7	Str.	5	Cu. st.
11	36.4	39.8	31.6	35.9		22.0					0		4	Cu.
12	34.2	40.6	34.8	36.5		21.4					6	Str.	0	
13	35.5	43.1	34.8	37.8		24.0					0		9	Cir.
14	33.4	43.0	36.0	37.5		30.1					4	Cir.	2	Cir. cu.
15	34.0	44.0	35.6	37.9		25.3					0		0	
16	31.6	56.1	42.2	43.3		25.7					10	Str.	10	Str.
17	40.5	48.0	41.0	43.2		31.0					10	Str.	10	Str.
18	48.2	52.1	47.5	49.3		34.4					10	Str.	10	Str.
19	42.5	41.6	40.6	41.6		29.2			3.24		10	Str.	10	Str.
20	41.8	52.0	54.6	49.5		39.8					10	Cu.	8	Cir. cu.
21	59.8	57.5	44.5	53.9		48.2					0		3	Cir. cu.
22	42.5	47.5	42.5	44.2		39.5					10	Str.	10	Str.
23	44.4	53.4	51.1	49.6		35.2			0.05		10	Str.	8	Cir. st.
24	46.2	63.3	51.2	53.6		42.5					10	Str.	10	Str.
25	45.5	49.0	45.5	46.7		38.5					0		0	
26	48.6	57.5	48.4	51.5		38.6					10	Str.	10	Str.
27	47.8	66.1	50.2	54.7		45.5					0		8	Str.
28	46.4	53.5	50.5	51.8		43.5			0.15		10	Str.	2	Cir. cu.
19	41.0	50.2	36.5	42.6		38.5					4	Cir.	5	Cir. st.
30	43.6	49.2	35.1	42.6		26.5					0		0	
Sums									3.45		5.3		5.2	
Means				38° .3	44° .0	31° .3 21° .4	Min.				Mean.		5.7	

APRIL, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Str.		0	N. W.	2	N. E. E.	2	29,212	29,262	29,210	29,231	1
9	Cir. st.		0		0		0	29,205	29,008	29,050	29,088	2
8	Cu.		0	N.	2	N. W.	2	29,132	29,047	29,152	29,110	3
10	Str.	N. W.	2		0	N. N. W.	2	29,124	29,052	29,039	29,072	4
2	Cir.	N. W.	2		0	N. W. W.	2	28,964	28,928	28,930	28,941	5
10	Str.		0		0		0	28,890	28,894	29,069	28,951	6
10	Str.		0		0		0	28,164	29,137	29,198	29,166	7
0			0		0		0	28,104	29,109	29,196	29,136	8
0			0	N. W.	1		0	29,111	29,238	29,264	29,204	9
10	Str.		0	N. N. W.	2		0	29,310	29,308	29,362	29,327	10
4	Cir. cu.		0	N. W.	2		0	29,304	29,286	29,312	29,297	11
10	Str.		0		0		0	29,287	29,298	29,302	29,296	12
10	Str.		0		0		0	29,298	29,262	29,323	29,294	13
4	Cir. st.		0	N. N. W.	2		0	29,362	29,377	29,483	29,407	14
0			0	N.	4		0	29,673	29,561	29,571	29,602	15
3	Cir. cu.	N. W.	1		0		0	29,587	29,479	29,344	29,437	16
10	Str.		0	N. W.	2		0	29,195	29,086	29,206	29,162	17
10	Str.	N. N. E.	3		0		0	29,280	29,250	29,224	29,251	18
10	Str.		0		0		0	29,174	29,181	29,211	29,189	19
9	Cir. cu.		0		0		0	29,216	29,105	29,018	29,113	20
10	Str.	N.	2	N. W.	2	N. W.	2	29,248	28,879	28,954	29,027	21
10	Str.	N. N. W.	3	N. N. W.	3	N. N. W.	3	29,129	29,315	28,532	28,992	22
9	Cir. st.		0		0		0	29,626	29,392	29,112	29,377	23
0			0		0		0	29,356	29,297	29,323	29,325	24
0			0		0		0	29,196	29,240	29,264	29,233	25
10	Str.	N. E.	1		0		0	29,187	29,161	29,247	29,198	26
10	Str.		0		0		0	29,400	29,314	29,305	29,340	27
6	Cir. cu.		0		0		0	29,228	29,176	29,145	29,183	28
0			0		0		0	29,214	29,197	29,347	29,252	29
0			0	N. W.	2	N. W.	1	29,388	29,345	29,435	29,389	30
6.5		N.-N. N. E. & N. E.-E. N. E.					.27				29,219	Sums
		E.-& S. E.									29,602	Means
		S. & S. W.									28,941	
		W.-W. N. W. & N. W.-N. N. N. W.					.73					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain or melted snow.	Depth of snow in inches.	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	37.8	47.5	33.5	37.6		26.0					10	Str.	10	Str.
2	35.0	38.5	36.0	36.5		26.0			1.00	3.00	10	Str.	10	Str.
3	35.8	40.5	37.8	38.0		31.5					10	Str.	10	Str.
4	37.5	39.8	39.2	38.8		33.5					10	Str.	10	Str.
5	44.2	51.5	44.6	46.7		33.2					10	Str.	5	Cir. cu.
6	41.6	54.8	49.5	48.6		31.0					0		10	Str.
7	47.2	64.2	53.1	54.8		33.4	9 P. M.		0.12		0		0	
8	53.1	58.6	42.1	51.3		38.1					0		10	Cu.
9	53.1	62.5	52.6	56.1		39.1					0		10	Cu.
10	45.3	75.0	67.9	56.1		34.9					0		0	
11	62.3	83.1	61.6	69.0		39.9					10	Str.	0	
12	42.3	64.9	59.2	55.5		43.2	Sho	wer	0.25		0		0	
13	52.6	63.4	52.5	56.2		41.1					0		9	Cu.
14	59.2	62.3	49.9	57.1		52.1					0		4	Cu.
15	58.2	63.4	50.2	57.3		48.3					10	Str.	4	Cu.
16	59.2	55.2	49.8	54.7		31.3					0		10	Str.
17	48.3	56.9	52.1	52.4		48.2					10	Cu.	9	Cir. cu.
18	50.8	50.6	49.6	50.3		49.3					10	Str.	8	Cir. cu.
19	50.1	51.3	42.2	47.9		44.1					10	Str.	10	Str.
20	49.2	56.2	48.8	51.4		44.6			Rain		7	Cir. cu.	2	Cu. st.
21	44.4	56.3	49.8	50.2		45.1			"		6	Cu.	3	Cu.
22	53.9	69.8	54.8	59.5		39.4			"				0	
23	51.9	71.8	56.2	63.3		32.5					10	Str.	10	Str.
24	71.8	76.8	66.8	71.8		42.8					1	Cir.	0	
25	66.2	78.6	53.2	66.0		46.7			0.96		8	Str.	10	Str.
26	52.2	62.4	56.0	56.9		48.8					0		0	
27	53.2	63.4	56.1	57.6		37.6					10	Str.	0	
28	51.2	62.4	58.6	57.4		39.0			0.21		10	Str.	8	Cir. st.
29	56.2	70.6	60.2	62.3		41.3					0		0	
30	59.0	74.6	62.2	65.3		50.4					10	Str.	7	Str.
31	59.1	74.3	61.1	64.8		56.7					10	Str.	10	Str.
Sums				54° 6		40° 3					5.5		5.8	
Means						26° 0	Min.		2.54		Mean.		6.3	

MAY, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Str.	W.	1	S. W.	2		0	29,442	29,291	29,200	29,311	1
10	Str.	S.	1	S. S. W.	1		0	29,012	29,829	29,675	29,505	2
10	Str.		0	S. E.	2		0	29,619	29,716	29,855	29,730	3
10	Str.		0	S. W.	2	S.	2	29,870	29,885	29,006	29,587	4
0			8		0		0	29,199	29,280	29,392	29,290	5
2	Cir. cu.		0		0		0	29,414	29,383	29,394	29,397	6
10	Str.		0		0		0	29,370	29,224	29,385	29,326	7
6	Cu.		0	N. E.	2		0	29,384	29,296	29,271	29,317	8
10	Cu.		0		0		0	29,229	29,155	29,194	29,193	9
0			0	S. E.	2		0	29,250	29,225	29,271	29,249	10
10	Str.		0	S. W.	2		0	29,272	29,091	29,116	29,160	11
10	Str.		0		0		0	29,184	29,123	29,223	29,177	12
10	Str.		0		0		0	29,230	29,178	29,078	29,162	13
10	Str.		0		0		0	28,911	28,900	28,855	28,889	14
0			0		0		0	28,880	28,806	28,913	28,866	15
10	Str.		0	N. E.	1	S. E.	2	28,950	28,846	28,816	28,871	16
9	Cir. cu.		0	S. W. W.	2		0	28,842	28,887	28,993	28,907	17
10	Cir. cu.		0		0		0	29,070	29,117	29,202	29,130	18
10	Str.		0		0		9	29,068	29,117	29,037	29,074	19
10	Str.	N. W. W.	2	N. W.	2		0	29,072	29,138	29,246	29,152	20
0		N. W.	1	N. N. W.	2		0	29,392	29,206	29,262	29,287	21
0			0		0		0	29,166	29,118	29,280	29,188	22
10	Str.		0		0		0	29,272	29,211	29,262	29,248	23
9	Str.		0		0		0	29,352	29,292	29,318	29,321	24
10	Str.		0		0		0	29,206	29,203	29,196	29,202	25
0			0		0		0	29,143	29,012	29,194	29,116	26
10	Str.		0		0		0	29,480	29,529	29,594	29,534	27
10	Str.		0		0		0	29,607	29,412	29,408	29,476	28
8	Str.		0		0		0	29,387	29,392	29,412	29,398	29
10	Str.		0		0		0	29,468	29,378	29,304	29,383	30
10	Str.		0		0		0	29,339	29,276	29,252	29,289	31
7.5		N. & N. E.					.10				29,249	Sums
		E. & S. E.					.21			Max.	29,730	Means
		S.-S. S. W. & S. W.-S. W. W.					.41			Min.	28,866	
		W.-W. N. W. & N. W.-N. N. W.					.28					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain and snow.	Time of ending of rain or snow.	Am't of rain or melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	64.1	76.1	65.6	68.9		50.2			.21		10	Str.	10	Str.
2	64.6	78.2	68.5	70.4		56.7					10	Str.	8	Str.
3	60.2	78.8	69.6	66.2		58.2					0		0	
4	62.1	80.1	65.6	69.3		52.4					0		0	
5	64.4	82.2	59.2	68.6		48.8					0		0	
6	48.6	66.2	50.4	55.1		38.9			.26		0		0	
7	55.4	58.4	52.2	55.3		39.9					0		0	
8	43.1	59.9	50.2	51.1		38.6					10	Str.	8	Str.
9	46.6	62.8	52.1	53.8		39.2					10	Str.	10	Str.
10	54.2	60.7	50.1	55.0		39.9					6	Am.	6	Str.
11	52.6	59.3				40.4			.52		10	Str.	10	Str.
12	52.9	59.3				39.9					8	Cir. st.	10	Str.
13	53.8					42.4					10	Str.	0	
14	55.4	74.3	60.5	63.4		44.3					10	Str.	10	Str.
15	56.4	75.6	61.3	64.4		45.4					10	Str.	4	Cu.
16	57.7	75.2	62.4	65.1		46.4			.61		0		10	Str.
17	58.4	76.1	63.3	65.9		47.8					0		4	Cu.
18	60.1	74.8	58.4	64.4		49.4			.36		0		0	
19	60.2	72.1	57.7	63.3		48.8					10	Str.	8	Str.
20	54.9	71.1	60.3	62.1		46.4					10	Str.	10	Str.
21	36.8	60.4	58.2	51.8		44.0			1.10		4	Str.	10	Str.
22	50.1	59.1	60.4	56.5		46.8					10	Str.	10	Str.
23	59.8	60.6	62.4	60.9		48.8					10	Str.	10	Str.
24	66.3	73.2	62.1	67.2		60.4					0		0	
25	68.2	72.0	61.2	67.1		62.2					0		10	Str.
26	62.0	73.4	61.8	62.4		61.7					6	Cu.	0	
27	58.6	63.6	59.2	60.5		58.2					10	Str.	10	Str.
28	61.2	65.5	64.7	63.8		46.1			.35		10	Str.	10	Str.
29	71.9	77.4	66.4	71.9		59.4					3	Str.	5	Cu.
30	62.8	65.8	57.6	62.1		59.2			.05		10	Cu.	10	Str.
Sums									3.46					
Means				62°.5		48°.7 38°.6	Min.				5.9	Mean.	6.1 6.0	

JUNE, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Monts.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Str.		0		0		0	29.242	29,268	29,407	29,306	1
0			0		0		0	29,541	29,488	29,498	29,509	2
0			0	S. W.	1		0	29,574	29,264	29,366	29,401	3
10	Str.		0	S. W. W.	2		0	29,459	29,289	29,326	29,358	4
0			0	S. W.	2		0	29,106	28,916	29,133	29,052	5
0			0	S. W. W.	2		0	29,424	29,478	29,580	29,497	6
0			0	S. S. W.	3		0	29,662	29,450	29,538	29,550	7
10	Str.		0		0		0	29,522	29,560	29,582	29,555	8
10	Str.		0		0		0	29,723	29,942	29,606	29,757	9
10	Str.		0	S. W.	2		0	29,537	29,836	29,346	29,436	10
10	Str.		0	N. E.	2		0	29,189	29,144			11
			0	N. E. E.	2		0	29,239	29,200			12
			0	N. E.	2		0	29,280				13
10	Str.		0	N. E.	2		0	29,066	29,032	28,988	29,021	14
10	Str.		0	N. E.	2		0	29,100	28,982	29,036	29,039	15
0			0	S. W. W.	2		0	29,220	29,232	29,300	29,251	16
6	Am.		0	S. W.	2		0	29,446	29,438	29,482	29,455	17
10	Cu.		0	S. W.	2		0	29,548	29,400	29,319	29,422	18
4	Str.		0		0		0	29,488	29,382	29,426	29,435	19
10	Str.	N. E.	2		0		0	29,321	29,256	29,144	29,240	20
10	Str.		0		0		0	29,192	29,238	29,256	29,229	21
10	Str.		0		0		0	29,300	29,302	29,348	29,316	22
10	Str.		0	S. W.	2		0	29,368	29,318	29,360	29,349	23
0			0		0		0	29,481	29,486	29,380	29,446	24
6	Str.		0		0		0	29,445	29,496	29,518	29,486	25
4	Str.		0		0		0	29,505	29,320	29,384	29,403	26
10	Str.		0		0		0	29,382	29,328	29,326	29,345	27
10	Str.		0		0		0	29,244	29,120	29,075	29,146	28
4	Cir.		0		0		0	29,212	29,251	29,218	29,227	29
5	Str.		0	W. N. W.	2		0	29,141	29,073	29,198	29,137	30
5.9		N. & N. E.-E. N. E.					.35				29,347	Sums
		E. & S. E.					0			Max.	29,757	Means
		S.-S. S. W. & S. W.-W. S. W.					.59			Min.	29,021	
		W.-W. N. W. & N. W.-N. N. W.					.06					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain or melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	55.2	61.9	51.8	56.3	64.5	48.6					2	Str.	10	Str.
2	53.3	71.4	61.5	63.1	74.0	42.6					F		7	Str.
3	56.2	76.8	70.5	67.8	79.0	49.7					F		10	Str.
4	66.1	78.9	67.3	71.4	83.6	64.4	Slight	shower	A.M.		F		7	Cir. st.
5	58.5	65.8	56.2	60.2	70.0	50.5					0		1	Cu. st.
6	56.0	71.4	59.4	62.3	73.2	43.1					F		3	Cir. cu.
7	57.5	77.1	64.0	66.2	78.2	48.1					F		2	Cir.
8	66.3	81.0	64.1	70.5	82.0	56.0	2½ P. M.	Night.	1.25		5	Cir.	10	Cu. st.
9	64.4	69.3	61.8	65.2	72.1	62.0	11½ A. M.	6½ P. M.	0.26		10	Str.	10	Cir. st.
10	62.2	77.1	68.5	69.3	78.5	57.0					0		8	Cir. st.
11	72.9	84.3	69.4	75.5	86.2	64.4					5	Cir. st.	0	
12	64.2	72.6	62.0	66.3	74.2	54.8					0		4	Cu.
13	58.0	73.4	63.4	64.8	74.6	52.3					10	Cir. st.	0	
14	65.3	74.8	65.3	68.5	77.2	59.9					2	Cu.	3	Cu.
15	65.0	73.2	64.0	67.4	75.4	60.2					10	Str.	10	Str.
16	62.5	80.0	64.8	72.5	84.0	62.0			0.25		10	Nim.	0	
17	73.8				82.6	60.4					4	Am.		
18	70.3	74.5	68.2	71.0	79.1	58.6					9	Cir. st.	9	Cu.
19	61.2	75.0	65.0	67.1	76.2	49.0					1	Cir. st.	4	Cu.
20	62.4													
21														
22														
23														
24														
25														
26		73.5							0.38					
27		80.0			81.0	66.0			0.53					
28		76.4			81.5	62.0								
29		69.1			83.0	60.5								
30		74.3			79.0	52.4								
31					74.5	55.3								
Sums									2.67					
Means				64° 9	77° 6	55° 9					3.6		5.2	
				Max.	84° 0	43° 1	Min.					Mean.	4.6	

JULY, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Str.	N. W.	2	N. W.	2	N. W.	1	29,335	29,352	29,346	29,344	1
7	Str.		0	W. S. W.	2		0	29,309	29,223	29,298	29,273	2
10	Str.		0	S. W.	2		0	29,206	29,082	29,045	29,111	3
10	Cir. st.		0	N. N. W.	2	N. N. W.	3	29,030	29,047	29,211	29,096	4
0		N. N. W.	2	N. N. W.	3		0	29,404	29,451	29,543	29,466	5
8	Str.	W. S. W.	1	W. N. W.	2		0	29,633	29,565	29,583	29,594	6
10	Str.		0	S. S. W.	2		0	29,587	29,463	29,425	29,492	7
10	Str.	S. W.	1	S. S. W.	2	S. S. W.	2	29,425	29,325	29,335	29,362	8
9	Str.	S. S. W.	1	S.	2	S.	1	29,263	29,141	29,174	29,193	9
4	Cir. st.	S. S. W.	1	W.	2	S. W.	1	29,245	29,260	29,180	29,232	10
10	Cu.	S.	2	S. W.	2	S. S. W.	1	29,003	29,017	28,282	28,734	11
0		W.	3	S. W.	2		0	29,218	29,226	29,410	29,251	12
0			0		0		0	29,491	29,418	29,178	29,362	13
2	Cir. st.		0		0		0	29,483	29,442	29,400	29,442	14
			0		0		0	29,350	29,306	29,280	29,312	15
6	Cir. st.		0		0		0	29,190	29,070	29,100	29,120	16
		N. W.	2					29,209				17
10	Cir. st.		0	S. W.	2		0	29,266	29,200	29,256	29,241	18
0			0		0		0	29,283	29,264	29,336	29,294	19
			0					29,387				20
												21
												22
												23
												24
												25
												26
				N. W.	1				29,221			27
				S. S. W.	1				29,284			28
									29,129			29
				N. W.	0				29,354			30
									29,683			31
5.1		N. & N. E.					0				29,273	Sums
		E. & S. E.					0				29,594	Means
		S.-S. S. W. & S. W.-W. S. W.					.53			Max.		
		W.-W. N. W. & N. W.-N. N. W.					.47			Min.	28,734	

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Means.	Maximum.	Minimum.	Time of beginning of rain and snow.	Time of ending of rain or snow.	Am't of rain or melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1														
2														
3		64.4	55.5		79.0	40.9							9	Cu.
4	55.0	74.0	63.5	64.2	75.3	48.0					1	Str.	5	Cir. st.
5	55.6	76.5	66.8	66.3	78.7	52.5					9	Cir. st.	2	Str.
6	60.2	75.0	68.0	67.4	76.8	53.8					10	Cu. st.	7	Cu. st.
7	65.0	72.6	68.8	68.8	75.8	59.4	At in	tervals	0.15		9	Str.	6	Cir. st.
8	69.4	80.0	69.0	72.8	81.8	62.1			.095		10	Cu. st.	7	Cu.
9	64.2	65.0	62.9	64.0	70.5	61.5	Shower	P. M.			7	Cu. st.	10	Cu. st.
10	53.9	62.8	55.5	57.4	62.2	53.1	Morn	Night	4.68		10	Str.	10	Cu. st.
11	54.7	64.9	52.2	57.3	67.0	53.3					6	Cir. st.	4	Cir. st.
12	49.5	70.0	62.5	60.7	73.1	46.0					F		1	Cu. st.
13	56.8	74.0	63.8	65.9	75.4	55.2					F		2	Cu.
14	58.9	71.2	62.9	64.3	74.5	55.3					10	Str.	1	Cu.
15	58.8	73.9	65.1	65.9	75.8	58.5					F		7	Cu. st.
16	54.0	73.0	65.3	64.1	75.5	49.7					F		7	Cir. st.
17	59.3	63.6	58.0	60.3	66.5	58.4					10	Cu. st.	10	Cu. st.
18	54.9	65.0	55.3	58.4	65.4	54.0	Morn	ing	.005		10	Cu. st.	10	Cu. st.
19	53.8	69.8	67.5	63.7	76.7	50.1					F		3	Cir. st.
20	67.6	78.1	63.2	69.6	79.4	61.0	Shower	P. M.			10	Cu. st.	4	Cu.
21	60.7	58.7	54.8	58.1	63.7	58.5					10	Str.	10	Str.
22	54.4	58.6	56.3	56.4	60.0	52.9					10	Str.	10	Str.
23	57.0	66.1	54.5	59.2	69.0	55.8					10	Str.	5	Cu. st.
24	49.6	69.3	62.0	60.3	71.2	47.7					F		1	Cir.
25	60.0	70.0	64.5	64.8	70.0	58.0					10	Str.	10	Str.
26	61.2	66.3	61.6	63.0	68.0	60.1	Morn	8 A. M.	1.20		10	Str.	10	Str.
27	43.9	47.5	42.1	44.5	62.5	42.3					10	Str.	10	Cu. st.
28	38.0	48.5	39.1	41.9	50.9	34.3					4	Cu. st.	1	Str.
29	39.6	61.3	52.8	51.2	62.9	35.1					3	Str.	9	Cu. st.
30	45.0	69.4	54.3	56.2	71.1	43.0					4	Cir.	4	Cir. cu.
Sums									6.130					
Means				60°.9	70°.6	52°.2					6.1		6.3	
				Max.	79°.4	35°.1	Min.					Mean.	5.4	

SEPTEMBER, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
5	Str.			E.	1	S.	1		29,524	29,529		1
7	Str.		0	W. N. W.	2	S. S. E.	1	29,564	29,489	29,512	29,522	2
2	Str.		0	S. W.	2	S. S. W.	2	29,538	29,474	29,476	29,496	3
10	Str.	S. S. W.	1	S. S. W.	2	S. S. W.	2	29,555	29,498	29,515	29,529	4
7	Str.	S.	1	S. S. W.	3	S. S. W.	3	29,919	29,474	29,347	29,447	5
10	Str.	S. W.	1	S.	1	S. S. W.	1	29,202	29,069	28,826	29,032	6
5	Str.	S. W.	3	N. W.	2	N. N. W.	1	29,011	29,195	29,290	29,165	7
10	Str.	N. E.	2	N. W.	1	N. W.	2	29,398	29,370	29,411	29,426	8
1	Str.		0	N. W.	2		0	29,472	29,461	29,512	29,482	9
8	Cu.		0	S. E.	1		0	29,624	29,596	29,655	29,625	10
0			0	S. E.	2		0	29,747	29,726	29,750	29,741	11
0			0		0		0	29,796	29,702	29,673	29,724	12
0			0	E. S. E.	1	S. S. E.	1	29,671	29,555	29,518	29,581	13
2	Str.		0		0		0	29,495	29,466	29,510	29,490	14
10	Str.	S. E.	1	S. E.	3	S.	1	29,673	29,688	29,736	29,699	15
1	Cir.	S.	1	S.	1		0	29,783	29,744	29,721	29,749	16
2	Cir.		0	W. S. W.	1		0	29,687	29,571	29,535	29,597	17
10	Str.		0	N. W.	3	N. N. E.	1	29,429	29,406	29,495	29,443	18
10	Str.	S. S. E.	2	S. E.	4	S. E.	3	29,598	29,576	29,640	29,605	19
10	Str.	S. E.	1	S. S. W.	1	S. S. W.	1	29,687	29,655	29,660	29,669	20
0			0	E. N. E.	1		0	29,712	29,693	29,734	29,713	21
0			0	S. W.	1		0	29,787	29,708	29,706	29,734	22
7	Str.		0	S. W.	3	S. S. W.	3	29,698	29,614	29,540	29,617	23
10	Str.	S. S. W.	2	S. S. E.	4	S. S. E.	3	29,385	29,182	29,100	29,222	24
4	Cu. st.	N.	3	N. W.	3	N. W.	2	29,166	29,252	29,386	29,268	25
0		N. W.	2	N. N. W.	2	N. N. W.	1	29,534	29,562	29,612	29,569	26
1	Str.	W.	1	S. W.	1		0	29,703	29,653	29,658	29,671	27
0		S. W.	1	S. W.	3	S. W.	1	29,717	29,564	29,576	29,619	28
4.7		N.-N. N. E. & N. E.-E. N. E.					.07				29,534	29
		E.-E. S. E. & S. E.-S. S. E.					.27			Max.	29,749	30
		S.-S. S. W. & S. W.-W. S. W.					.42			Min.	29,032	Sums
		W.-W. N. W. & N. W.-N. N. W.					.24					Means

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain and melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	42.3	71.1	54.0	55.8	72.5	39.7					0		3	Cir.
2	48.1	67.0	61.0	58.7	70.0	46.5					F		0	
3	60.0	59.4	58.0	59.5	64.8	58.6	Morn'g	5 P. M.	5.885		10	Str.	10	Str.
4	56.2	58.0	56.2	56.8	66.4	56.0					10	Str.	10	Str.
5	47.0	49.4	44.7	47.0	66.1	46.8	In early	morn'g	.185		7	Str.	10	Cu. st.
6	35.8	50.7	38.8	41.8	66.0	33.3					0		1	Str.
7	32.0	53.4	42.0	42.5	56.0	28.9					F		0	
8	36.0	58.9	48.0	47.6	62.4	32.8					F		0	
9	40.0	62.4	51.9	51.4	66.3	37.3					F		0	
10	47.0	62.3	56.0	55.1	65.5	42.0	P.M. and	evening	1.71		9	Str.	4	Cu. st.
11	50.8	55.2	45.5	50.5	58.0	49.3					10	Str.	4	Cu. st.
12	44.1	53.9	52.7	50.2	57.3	42.1	1.45 P.M.	night }	1.04		9	Str.	10	Cu. st.
13	53.0	48.5	41.2	44.2	57.8	48.0					10	Str.	10	Str.
14	38.8	49.0	44.9	44.2	53.5	36.2	P.M. and	night	.06		0		1	Str.
15	45.0	57.9	50.3	51.1	59.9	43.2	evening	& night	.14		8	Cu. st.	9	Cu. st.
16	44.5	45.6	44.0	44.7	59.0	43.2					10	Str.	10	Str.
17	37.8	52.3	43.8	44.6	59.5	35.5					0		6	Cu. st.
18	38.9	49.1	35.8	41.3	59.0	36.8	Shower	P. M.			8	Cu. st.	9	Cu. st.
19	32.9	53.2	38.3	41.8	56.9	31.8	Slight "	P. M.			3	Str.	10	Cu. st.
20	32.2	40.3	37.2	36.6	42.0	29.6					9	Cu. st.	8	Cu. st.
21	30.9	46.2	40.5	39.2	58.2	28.7				Sno	0		0	
22	37.8	48.9	37.0	41.2	50.3	35.0					10	Str.	1	Cu.
23	33.9	44.8	45.4	41.4	46.0	31.0					10	Str.	10	Str.
24	43.8	45.7	31.2	40.2	47.5	42.9	2 P. M.	midnight	.225		9	Str.	4	Cu. st.
25	33.5	37.8	32.9	34.7	47.3	25.7					10	Cu. st.	8	Cu. st.
26	25.3	39.9	30.8	32.0	47.4	22.5					1	Str.	8	Cu. st.
27	30.5	30.9	30.0	30.5	47.1	27.9					10	Cu. st.	9	Cu. st.
28	24.8	32.9	30.8	39.5	46.4	21.2				Sno	10	Str.	10	Str.
29	30.9	34.8	33.5	33.1	36.7	29.0	(during day)			.50	10	Str.	10	Str.
30	32.8	34.1	31.8	32.9	36.5	31.9					10	Cu. st.	10	Str.
31	29.5	33.4	24.9	29.3	37.0	28.9					10	Str.	8	Cu. st.
Sums				43° 9	55° 5	36° 8			9.245	.50			6.1	
Means				Max.	72° 5	21° 2	Min.				6.2	Mean.	5.9	

OCTOBER, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 P. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
0			0 S.		1		0	29,630	29,546	29,554	29,577	1
1	Str.		0 S. W.		2	S. W.	2	29,544	29,448	29,451	29,481	2
10	Str.	S. W.	1 N. E.		2	S. E.	2	29,321	29,324	29,321	29,322	3
10	Str.	N. E.	2 N. E.		1	S. W.	2	29,054	29,731	28,783	29,189	4
6	Cu. st.	N. W.	2 N. W.		2	N. W.	1	28,935	29,118	29,288	29,114	5
0			0 N. W.		2		0	29,399	29,407	29,495	29,430	6
0			0 S. E.		1		0	29,610	29,573	29,581	29,588	7
0			0		0		0	29,673	29,625	29,454	29,584	8
0		N. E.	1 S. W.		1	S.	1	29,677	29,580	29,578	29,612	9
10	Str.		0 S. E.		2	S. E.	1	29,529	29,393	29,260	29,394	10
0		N. W.	2 W.		1		0	29,020	29,072	29,285	29,129	11
10	Str.	S. S. W.	1 S. S. E.		1	S. S. E.	2	29,276	29,225	29,153	29,218	12
10	Str.	S. E.	1 N. W.		3	N. W.	2	29,023	28,244	29,902	29,056	13
10	Str.	W.	1 S. S. E.		1	S. S. W.	1	29,146	29,152	29,064	29,121	14
10	Str.		0 W.		1	S.	1	29,244	29,120	29,254	29,229	15
7	Cu. st.	N.	1 N.		3	N. W.	2	29,188	29,150	29,154	29,164	16
0			0 N. W.		2	N. W.	1	29,127	29,018	29,146	29,130	17
5	Cu. st.		0 W. S. W.		2		0	29,244	29,213	29,344	29,267	18
10	Cu. st.		0 S. W.		1	S. W.	1	29,378	29,262	29,226	29,289	19
10	Cu. st.	N. W.	1 W.		2	S. S. W.	1	29,294	29,277	29,311	29,294	20
0		S. S. W.	1 S. S. W.		2		0	29,357	29,267	29,297	29,307	21
1	Cir.	S. S. W.	1 N. W.		2		0	29,331	29,385	29,483	29,733	22
10	Cu. st.	N. E.	1 S. S. E.		4	S. S. E.	2	29,433	29,203	28,985	29,207	23
0		W.	1 W. N. W.		2		0	29,123	29,251	29,464	29,346	24
3	Str.		0 N. W.		1	W.	1	29,591	29,665	29,741	29,666	25
4	Str.		0 S.		2	N. E.	1	29,658	29,477	29,412	29,516	26
10	Str.	N. W.	2 N.		2		0	29,386	29,384	29,371	29,380	27
10	Str.	N. W.	1 S. S. W.		1		0	29,239	29,078	29,044	29,134	28
10	Str.		0		0		0	29,051	29,048	29,104	29,068	29
10	Str.	N. N. W.	2 N. W.		2	N. N. W.	3	29,151	29,173	29,304	29,209	30
0		N. W.	2 N.		2		0	29,456	29,467	29,478	29,467	31
5.4		N. & N. E.					.17				29,330	Sums
		E. & S. E.-S. S. E.					.18			Max.	29,733	Means
		S.-S. S. W. & S. W.-W. S. W.					.24			Min.	29,056	
		W.-W. N. W. & N. W.-N. N. W.					.42					

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOMETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Means.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain and melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	19.9	29.1	29.6	26.2	31.3	18.4					3	Cir.	10	Str.
2	30.1	41.3	31.0	34.1	42.2	28.3					10	Str.	2	Cu.
3	20.0	43.8	27.0	33.6	45.5	27.4					10	Str.	8	Cir. st.
4	29.3	51.9	41.0	40.7	55.2	27.9					F		0	
5	36.0	48.4	46.1	43.5	51.3	34.5	Slight	shower.			8	Cir.	10	Str.
6	33.0	45.9	38.4	39.1	50.8	30.0					1	Cu.	3	Cu. st.
7	30.0	31.9	28.3	30.1	44.3	29.2				Sno.	10	Str.	10	Str.
8	26.9	32.7	28.8	29.5	42.5	25.0					10	Str.	10	Cu.
9	29.4	35.9	34.0	33.1	38.8	27.0					10	Cu. st.	1	Cir. st.
10	33.0	37.0	29.8	33.3	38.1	32.1					10	Cu. st.	2	Cu.
11	25.2	33.4	29.1	29.2	34.6	22.0					0		10	Cu. st.
12	26.0	34.2	27.5	29.2	35.5	22.8					5	Str.	8	Cu. st.
13	28.9	33.8	25.8	29.5	34.9	26.0					10	Cu. st.	10	Str.
14	26.0	32.0	30.0	29.7	33.3	23.6					10	Cu. st.	10	Cu. st.
15	27.3	32.5	21.4	29.1	32.8	26.0					10	Str.	9	Cu. st.
16	21.8	24.6	19.6	22.0	32.8	19.0					9	Cu. st.	3	Cu.
17	25.1	34.8	36.0	32.0	38.3	26.8	Night	7 P. M.	0.22		10	Cu.	10	Cu.
18	33.8	35.5	30.4	33.2	38.5	32.0					7	Cir. st.	4	Cir. st.
19	24.9	38.0	36.8	33.2	39.0	24.0					1	Str.	8	Cir. st.
20	39.4	54.9	37.9	44.1	55.8	37.0	Night	11 A. M.	0.31		10	Cu.	2	Str.
21	32.9	39.1	33.1	35.0	42.8	30.9					9	Cir. st.	10	Cir. st.
22	21.1	28.9	26.0	25.3	41.8	19.5					2	Cu. st.	1	Str.
23	27.8	33.4	32.4	31.2	33.1	21.7		10 A. M.		0.80	10	Cir. st.	10	Cir. st.
24	31.8	29.9	24.2	28.6	33.3	29.9					10	Cu.	10	Cu.
25	19.0	27.0	24.0	23.3	27.8	17.8					9	Cir. st.	4	Cir.
26	13.8	25.0	26.0	21.6	27.6	12.2					3	Cir. st.	10	Cu. st.
27	27.1	29.1	27.3	27.8	29.1	24.5					10	Cu. st.	10	Cu. st.
28	27.2	28.3	18.8	24.8	30.1	25.6					9	Cu. st.	8	Cir. st.
29	17.4	32.2	29.0	26.2	33.3	13.3					3	Cir. st.	3	Cir. st.
30	34.0	41.6	42.8	52.8	43.8	28.6	Night		.25		10	Cu.	10	Cu.
Sums														
Means				31° 7	38° 6	25° 5			0.78	0.80	7.3	Mean.	6.9	7.0
				Max.	55° 8	12° 2	Min.							

NOVEMBER, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 A. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Str.		0	N.	1		0	29,389	29,327	29,430	29,382	1
2	Str.		0	N. N. E.	1		0	29,266	29,832	29,700	29,533	2
1	Str.		0	S. W.	1		0	29,690	29,563	29,481	29,578	3
0			0	S. S. E.	1		0	29,501	29,366	29,311	29,393	4
7	Str.		0		0	S.	1	29,135	29,056	29,048	29,080	5
10	Str.	S. S. W.	1	W. S. W.	2		0	29,078	29,054	29,029	29,054	6
4	Str.	N. N. W.	1	W. N. W.	2	S. S. W.	2	28,787	28,649	28,718	28,718	7
8	Str.	W. S. W.	2	W. N. W.	2	W.	2	28,759	28,765	28,885	28,803	8
10	Str.	N. W.	1	W.	2	W.	2	29,016	29,004	29,020	29,013	9
1	Str.	W. N. W.	1	W.	2	N. E.	1	29,051	29,089	29,173	29,104	10
10	Str.	W.	1	N. N. W.	1	W. N. W.	1	29,204	29,134	29,206	29,181	11
0		S.	1	N. W.	2		0	29,243	29,238	29,348	29,276	12
10	Cir. st.		0	W. N. W.	1	N. E.	2	29,439	29,420	29,439	29,433	13
10	Str.		0	N. E.	1	N. W.	1	29,363	29,366	29,298	29,309	14
10	Cu.	N. W.	1	W.	3	N. N. W.	2	29,331	29,315	29,444	29,363	15
10	Cir.	N. N. W.	1	N. W.	3	N. N. E.	2	29,539	29,578	28,506	29,208	16
8	Cu. st.	S. E.	3	S. W.	3	S. W.	2	29,320	29,903	28,786	29,338	17
1	Cir.	S. W.	3	N. N. W.	3	S. W.	3	28,790	29,002	29,259	29,017	18
9	Cu.	W. S. W.	2	S. W.	3	S. W.	4	29,465	29,464	29,511	29,480	19
2	Str.	S. E.	3	S. W.	2	W. S. W.	1	29,062	28,818	29,083	28,983	20
10	Cu.	S. E.	1	N. W.	1	N. N. W.	2	29,203	29,261	29,366	29,277	21
9	Cu.	N. N. E.	2	N.	2	N. N. E.	2	29,542	29,546	29,530	29,539	22
10	Cu.	S. E.	2	W. S. W.	1	S. W.	2	29,444	29,399	29,343	29,392	23
9	Cu.	N. E.	2	W. N. W.	3	N.	3	29,501	29,590	29,663	29,585	24
10	Cu.	N. W.	2	N. W.	1	N.	1	29,722	29,700	29,674	29,699	25
10	Cu.	N. N. W.	2	N.	2	E. S. E.	1	29,653	29,575	29,594	29,607	26
0		E.	2	S. W.	1	W. S. W.	1	29,348	29,181	29,163	29,231	27
1	Cir. st.	N.	2	N.	3	N.	1	29,310	29,332	29,449	29,364	28
10	Cu.	N. N. E.	2	S. S. E.	1	N. N. E.	2	29,451	29,427	29,407	29,462	29
10	Cu.	S. E.	1	W. S. W.	2	S. W.	1	29,239	29,063	29,957	29,086	30
6.7		N.-N. N. E. & N. E.-E. N. E.			.24						29,283	Sums
		E.-E. S. E. & S. E.-S. S. E.			.11					Max.	29,699	Means
		S.-S. S. W. & S. W.-W. S. W.			.31					Min.	28,718	
		W.-W. N. W. & N. W.-N. N. W.			.34							

FOR THE MONTH OF

Day of Month.	THERMOMETER IN THE OPEN AIR.				THERMOM- ETER.		RAIN AND SNOW.				CLOUDS.			
											7 A. M.		2 P. M.	
	7 A. M.	2 P. M.	9 P. M.	Means.	Maximum.	Minimum.	Time of beginning of rain or snow.	Time of ending of rain or snow.	Am't of rain and melted snow in gauge, in ins.	Depth of snow in inches	Am't of cloudiness.	Kind of clouds.	Am't of cloudiness.	Kind of clouds.
1	43.6	35.2	22.9	33.9	50.0	36.0	P. M.	Night.	0.45		9	Cu. st.	9	Cir. st.
2	13.8	18.3	13.9	15.3	23.0	13.0					10	Cir. st.	9	Cir. st.
3	12.1	19.0	11.0	14.0	23.2	9.9					10	Cu.	8	Cir. st.
4	6.8	18.0	23.3	16.0	22.0	3.4	7 A. M.	Eveni'g		0.70	10	Cu.	10	Cu.
5	26.1	27.2	16.8	23.4	30.0	17.6					10	Cu.	10	Cu. st.
6	10.0	15.2	16.0	13.7	17.0	6.3	1 P. M.	Night.		7.00	10	Cu.	10	Cu.
7	10.0	14.5	3.4	9.3	17.5	6.6					10	Cu.	8	Cir. st.
8	-12.3	6.1	-0.3	-2.2	13.3	-16.0					10	Cu.	4	Cu. st.
9	-9.0	11.8	2.8	1.9	12.4	-11.5					0		0	
10	8.2	7.9	6.0	7.4	13.0	11.6					F			
11	14.8	28.0	23.2	22.0	29.0	2.3					0		2	Str.
12	28.6	35.2	33.5	34.2	37.6	21.0	11 A. M.	9 P. M.	0.20		10	Cu. st.	10	Cu.
13	29.0	26.4	23.8	26.4	33.9	24.3					10	Cu.	10	Cu. st.
14	11.0	22.0	12.0	15.0	24.6	7.9					0		0	
15	1.1	17.7	11.8	10.2	17.9	-0.5					2	Cu. st.	0	
16	14.0	33.3	33.3	26.9	35.0	6.8					10	Cu. st.	10	Cu. st.
17	32.4	36.8	33.0	34.1	37.4	31.6					F		10	Cu.
18	32.0	33.3	31.6	32.3	35.0	26.5	3½ P. M.				10	Cu.	10	Cu. st.
19	28.4	27.3	24.0	26.6	32.0	25.6		7 A. M.	0.28		10	Cu.	10	Cu.
20	25.3	28.8	24.9	26.3	31.4	20.0					10	Cu.	10	Cu.
21	20.3	23.8	21.4	21.8	25.4	17.7					10	Cu. st.	4	Cir. st.
22	22.2	34.0	38.4	31.5	39.0	19.3					10	Cu. st.	10	Cu.
23	29.2	33.0	26.3	29.5	40.6	28.3					10	Cu.	4	Cir. st.
24	19.8	28.0	22.8	23.5	28.9	12.0					8	Cir. st.	3	Cir. st.
25	18.3	32.6	31.7	27.5	32.2	15.4					9	Cu. st.	9	Cu. st.
26	32.8	35.0	35.0	34.3	35.3	15.2					10	Cu. st.	10	Cu.
27	34.4	39.6	35.6	36.5	39.8	33.6					F		F	
28	36.2	37.1	36.2	36.8	39.0	34.6	12½ P. M.		0.09		10	Cu. st.	10	Cu.
29	34.8	37.0	34.8	35.5	38.0	33.1					10	Cu. st.	10	Cu. st.
30	32.3	34.9	35.0	34.1	37.0	32.0					10	Cu. st.	10	Cu. st.
31	34.9	37.4	34.0	35.4	38.0	33.6					10	Cir. cu.	4	Cir. st.
Sums				23° 6	29° 9	16° 7			1.02	7.70	7.9		6.9	
Means				Max	50° 0	-16° 0	Min.					Mean.	6.8	

DECEMBER, 1869.

CLOUDS.		WINDS.						BAROMETER.				Day of Month.
9 A. M.		7 A. M.		2 P. M.		9 P. M.		Barometer height reduced to freezing point.				
Am't of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.	
10	Cu.	W. N. W.	3	N. W.	2	N. N. W.	3	29,942	29,188	39,428	29,519	1
2	Cir.	N. N. W.	2	E. N. E.	2	N. E.	1	29,491	29,405	29,400	29,765	2
1	St.	N. E.	2	E. N. E.	1	N. W.	2	29,419	29,473	29,654	29,515	3
10	Cu.	N.	2	S.	2	S. W.	2	29,705	29,451	28,285	29,479	4
1	Cu. st.	S. W.	2	E. N. E.	1	N.	2	29,324	29,414	29,559	29,432	5
10	Cu. st.	N. N. E.	2	N. E.	2	N.	2	29,224	29,510	29,365	29,366	6
0		N. W.	2	N. E.	1	N. N. E.	2	29,331	29,408	29,553	29,431	7
4	Cir. st.	N. E.	2	N. E.	2	N. N. E.	2	29,635	29,745	29,859	29,746	8
0		S.	2	E.	2	S. W.	2	29,999	29,987	29,995	29,994	9
0		S.	2	S. E.	2	N. E.	1	29,974	29,120	29,678	29,591	10
10	Cu.	N. N. E.	2	N. E.	1	S.	1	29,603	29,555	29,600	29,586	11
10	Cu.	W.	1	S. E.	1	S. W.	1	29,496	29,429	29,421	29,449	12
10	Cu.	N. W.	1	N. W.	1	N. N. W.	2	29,619	29,737	29,828	29,728	13
0		N. N. E.	1	N. E.	1	N. W.	2	29,865	29,817	29,825	29,836	14
3	Str.	N. E.	1	N. E.	1	N. E.	2	29,818	29,708	29,671	29,732	15
10	Cu.	S. E.	2	S. E.	3	S.	1	29,588	29,422	29,333	29,448	16
8	Cir. st.	S.	1	N. E.	1	N.	1	29,423	29,431	29,461	29,438	17
10	Cu.	S. E.	1	E.	1	N. N. E.	1	29,339	29,113	29,568	29,340	18
0		N. W.	1	W.	2	S. S. W.	2	28,694	29,912	29,154	29,252	19
10	Cu.	W.	1	W.	1	W.	1	29,361	29,441	29,853	29,553	20
10	Cu.	N.	1	E.	1	E.	1	29,828	29,909	29,925	29,887	21
10	Cu.	S.	2	S.	1	S. W.	1	29,668	29,195	29,952	29,605	22
0		N.	1	W.	2	W. S. W.	2	29,241	29,374	29,935	25,517	23
0		W.	1	W. S. W.	2	W.	1	29,755	29,678	29,905	29,779	24
10	Cu.	W.	1	W.	1	S.	1	29,833	29,646	29,975	29,818	25
10	Cu.	E.	1	E.	1	N. E.	1	29,740	29,792	29,554	29,695	26
F		N.	1	W.	1	W.	1	29,588	29,434	29,359	29,460	27
F		W.	1		0			29,223	29,124	29,029	29,125	28
10	Cu.	N.	1	W.	1			29,138	29,168	29,206	29,171	29
10	Cu. st.	S. W.	1	S. S. W.	1	W.	1	29,114	29,006	29,116	29,079	30
0		N. W.	2	N. W.	2	N. W.	2	29,223	29,322	29,452	29,332	31
5.0		N.-N. N. E. & N. E.-E. N. E.					.33				29,541	Sums
		E.-E. S. E. & S. E.-S. S. E.					.12			Max.	29,994	Means
		S.-S. S. W. & S. W.-W. S. W.					.22			Min.	29,079	
		W.-W. N. W. & N. W.-N. N. W.					.33					



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